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10/643,669	08/19/2003	John D. Tanner	9346	5756

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EXAMINER

KIM, SUN U

ART UNIT PAPER NUMBER

1723

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/643,669

Applicant(s)

TANNER ET AL.

Examiner

John Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-50 is/are pending in the application.
- 4a) Of the above claim(s) 37-50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. Applicant's election with traverse of Group I (claims 1-36) in the reply filed on 6/15/06 is acknowledged. The traversal is on the ground(s) that the burden on the examiner would be minimal. This is not found persuasive because these inventions are distinct for the reasons given above and also because (i) they have acquired a separate status in the art as shown by their different classification, (ii) the search required for the respective groups is not necessarily required by each of the other groups, and (iii) their subject matter is recognized as divergent.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 37-50 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 6/15/06.

3. Examiner suggests applicant to update the status of applications in continuity chains on page 1 of the specification as abandoned or patented or pending.

4. Claims 11, 15 and 16 are objected to because of the following informalities: "wate r" on line 1 of claims 11, 15 and 16 should be corrected to "water". Appropriate correction is required.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 3, 5-7, 12-14, 16-17, 19-22, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clack, U.S. Patent No. 4,997,553 in view of Birdsong et al., U.S. Patent No. 5,131,277, Gadkaree et al, U.S. Patent No. 6,228,803 and Koslow, U.S. Patent No. 6,630,016.

Regarding Claim 1, Clack discloses a water filter device for treating untreated drinking water, the water filter device comprising: a connector (#28) for providing fluid communication between the water filter device and an untreated drinking water source (#12); a low-pressure water filter (#20) of activated carbon filter module in fluid communication with the connector, a storage housing (#24) in fluid communication with the low-pressure water filter; an automatic shutoff valve (#18) in fluid communication with the storage housing; and a dispenser (#26) in fluid communication with the storage housing. However, Clack does not disclose a water filter comprising the mesoporous activated carbon filter particles and Filter Bacteria Log Removal (F-BLR) of the water filter. Gadkaree et al teach a mesoporous activated carbon for water purification (Col. 1, lines 23-24; col. 2, lines 12-17). Koslow teaches a water filter comprising microporous structure of activated carbon having an F-BLR of greater than about 2 logs (Tables I and II)(see col. 1, line 64 – col. 2, line 13; col. 5, lines 27-62). Mesoporous activated carbon of Gadkaree et al inherently has F-BLR of greater than about 2 logs. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to substitute mesoporous activated carbon for activated carbon filter of Clack for capturing bacteria to purify water as

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suggested by Gadkaree et al and Koslow. Birdsong et al teach a water filter with a flow rate of 40 to 300 mL/min (Col. 22, Line 67- Col. 23, Line 2). One of skill in the art would by routine experimentation find the optimum flow rate. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955).

Regarding Claim 3, Koslow discloses that the filter material comprises activated carbon particles coated with cationic material to produce basic activated carbon filter particles (Col. 2, Lines 1-14; Col. 4, Lines 53-60). It would have been obvious to one of ordinary skill in the art to modify activated carbon of Clack to basic activated carbon to provide enhanced electro-kinetic interception of microorganisms as suggested by Koslow (Col. 4, Lines 53-58).

Regarding Claims 5-7, Koslow discloses a water filter comprising activated carbon with a F-BLR of greater than about 4 logs and a F-VLR of greater than about 3 logs (Tables I and II). Mesoporous activated carbon of Gadkaree et al inherently has F-BLR of greater than about 4 logs and a F-VLR of greater than about 3 logs. Furthermore, one of skill in the art would by routine experimentation find the optimum F-BLR. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955).

Regarding Claim 12, Birdsong et al disclose that at least a portion of the filter vessel (#11) is oriented on a front or side portion of said water filter device (Fig. 1; col. 4, lines 55-59). It would have been obvious to one of ordinary skill in the art to modify the activated carbon filter module of Clack with the filter vessel of Birdsong et al to house the filter media including activated carbon.

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Regarding Claim 13, Birdsong et al disclose that the height of the filter vessel (#14) is less than about 75% the height of the water filter device (Fig. 1). One of skill in the art would by routine experimentation find the optimum height to hold filter cartridge. It would have been obvious to one of ordinary skill in the art to make the filter vessel height as so desired or required, including as claimed to optimize filtration.

Regarding Claim 14, Clack discloses that the storage housing (#24) may be separably removed from the filter device via threads (#136) (Fig. 4).

Regarding Claim 16, Birdsong et al disclose a means of indicating the life of the water filter by a display (#620)(Col. 4, lines 61-68; Col. 20, Lines 4-18). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack with a display to inform the user that the filter requires replacement as suggested by Birdsong et al (Col. 20, Lines 4-18).

Regarding Claim 17, Birdsong et al disclose a sediment filter i.e. pre-filter consisting of polypropylene fibers (Col. 5, Lines 19-26). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack with a pre-filter to remove dirt particles as suggested by Birdsong et al (Col. 5, Lines 24-27).

Regarding Claim 19, Clack discloses a water filter device for treating untreated drinking water, the water filter device comprising: a connector (#28) for providing fluid communication between the water filter device and an untreated drinking water source (#12); a low-pressure water filter (#20) of activated carbon filter module in fluid communication with the connector, a storage housing (#24) in fluid communication with the low-pressure water filter; an automatic shutoff valve (#18) in fluid communication with the storage housing; and a dispenser (#26) in fluid communication with the storage housing. However, Clack does not disclose a water filter

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comprising the mesoporous activated carbon filter particles and Filter Bacteria Log Removal (F-BLR) of the water filter and a filter vessel. Gadkaree et al teach a mesoporous activated carbon for water purification (Col. 1, lines 23-24; col. 2, lines 12-17). Koslow teaches a water filter comprising microporous structure of activated carbon having an F-BLR of greater than about 2 logs (Tables I and II)(see col. 1, line 64 – col. 2, line 13; col. 5, lines 27-62). Mesoporous activated carbon of Gadkaree et al inherently has F-BLR of greater than about 2 logs. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to substitute mesoporous activated carbon for activated carbon filter of Clack for capturing bacteria to purify water as suggested by Gadkaree et al and Koslow. Birdsong et al teach a water filter with a filter vessel (#11) and a flow rate of 40 to 300 mL/min (Col. 22, Line 67- Col. 23, Line 2). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack with a filter vessel to house the filter media. One of skill in the art would by routine experimentation find the optimum flow rate. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955).

Regarding Claim 20, Koslow discloses that the filter material comprises activated carbon particles coated with cationic material to produce basic activated carbon filter particles (Col. 2, Lines 1-14; Col. 4, Lines 53-60). It would have been obvious to one of ordinary skill in the art to modify activated carbon of Clack to basic activated carbon to provide enhanced electro-kinetic interception of microorganisms as suggested by Koslow (Col. 4, Lines 53-58).

Regarding Claims 21-22, Koslow discloses a water filter comprising activated carbon with a F-BLR of greater than about 4 logs and a F-VLR of greater than about 3 logs (Tables I

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and II). Mesoporous activated carbon of Gadkaree et al inherently has F-BLR of greater than about 4 logs and a F-VLR of greater than about 3 logs. Furthermore, one of skill in the art would by routine experimentation find the optimum F-BLR. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955).

Regarding Claim 26, Clack discloses that the storage housing (#24) may be separably removed from the filter device via threads (#136) (Fig. 4). Claim 26 does not provide a definite structure that allows filter vessel to be separably removed from the water filter device.

Regarding Claim 27, Birdsong et al disclose a sediment filter i.e. pre-filter consisting of polypropylene fibers (Col. 5, Lines 19-26). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack with a pre-filter to remove dirt particles as suggested by Birdsong et al (Col. 5, Lines 24-27).

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Birdsong et al, Gadkaree et al and Koslow as applied to Claim 1 above, and further in view of Sipos et al., U.S. Patent No. 5,371,221.

Regarding Claim 4, Clack in view of Birdsong et al, Gadkaree et al and Koslow does not disclose reduced-oxygen activated carbon particles. Sipos et al teach a reduced-oxygen activated carbon particles produced by eliminating air/oxygen content of the activated carbon with a sweeping gas stream (Col. 2, Lines 7-14). It would have been obvious to one of ordinary skill in the art to modify the activated carbon of Clack in view of Birdsong et al, Gadkaree et al and Koslow with reduced-oxygen activated carbon particles of Sipos to reduce the overall heat input needed to preheat the carbon evenly (Col. 2, Lines 43-46).



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8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Birdsong et al, Gadkaree et al and Koslow as applied to Claim 1 above, and further in view of Baerg et al., U.S. Patent No. 3,670,892.

Regarding Claim 8, Clack in view of Birdsong et al, Gadkaree et al and Koslow does not disclose a float. Baerg et al teach a water filter device wherein the shutoff valve comprises a float (Col. 5, Lines 49-54). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack in view of Birdsong et al, Gadkaree et al and Koslow with a float to turn off automatic shut off valve to shut off the flow at a predetermined water height as suggested by Baerg et al (Col. 5, Lines 49-54).

9. Claims 9-10 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Birdsong et al, Gadkaree et al and Koslow as applied to Claims 1 and 19 above, and further in view of Deines et al., U.S. Patent No. 4,147,631 and Renn, U.S. Patent No. 3,268,444.

Regarding Claims 9-10 and 24, Clack in view of Birdsong et al, Gadkaree et al and Koslow does not disclose a flow regulator or fluid contact time or pressure. Deines et al teach a water filter device comprising a flow regulator (#145) with an incoming water pressure of between 30 and 40 psi (Col. 5, Lines 29-32). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack in view of Birdsong et al, Gadkaree et al and Koslow with a flow regulator to set a limit on the flow rate as suggested by Deines et al (Col. 5, Lines 34-39). Renn teaches a water filter device with a fluid contact time of 15 seconds (Col. 2, Lines 30-34). One of skill in the art would by routine experimentation find the optimum fluid contact time to remove bacteria. It is not inventive to discover the optimum or workable ranges

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by routine experimentation when the general conditions of a claim are disclosed in the prior art.

In re Aller, 105 USPQ 233, 235 (CCPA 1955).

10. Claims 11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Birdsong et al, Gadkaree et al and Koslow as applied to Claims 1 and 19 above, and further in view of Deines et al and Scavuzzo et al., U.S. Patent No. 3,333,703.

Regarding Claims 11 and 25, Clack in view of Birdsong et al, Gadkaree et al and Koslow does not disclose a threadably attachable filter vessel or a torque. Deines et al teach a water filter device comprising a threadably attachable filter vessel (#14)(Fig. 4). It would have been obvious to one of ordinary skill in the art to modify Clack in view of Birdsong et al, Gadkaree et al and Koslow with the threadably attachable filter vessel to removably secure the filter to the base as suggested by Deines et al (Col. 3, Lines 29-34). Scavuzzo et al teach a filter comprising a threaded casing with cover that can be installed with a torque of about 4 to 5 ft.-lbs. (Col. 6, Lines 19-25). One of skill in the art would by routine experimentation find the optimum torque to open filter vessel from the base. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955). Claim 25 does not provide a definite structure that allows the filter vessel to be opened with claimed torque.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Birdsong et al, Gadkaree et al and Koslow as applied to Claim 1 above, and further in view of Kuh et al., U.S. Patent No. 4,681,677.

Regarding Claim 15, Clack in view of Birdsong et al, Gadkaree et al and Koslow does not disclose a window. Kuh et al teach a water filter device comprising a window (#45) (see col.

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4, line 64 – col. 5, line 7). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack in view of Birdsong et al, Gadkaree et al and Koslow with a window to view the water meter unit as suggested by Kuh et al (Col. 4, Line 64 – Col. 5, Line 4).

12. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Birdsong et al, Gadkaree et al and Koslow as applied to Claim 1 above, and further in view of Cranshaw et al., U.S. Patent No. 6,117,319.

Regarding Claim 18, Clack in view of Birdsong et al, Gadkaree et al and Koslow does not disclose the volume of the storage housing. Cranshaw et al teach a water filter device comprising a storage housing having a volume of between 500 mL to 3 liters (Col. 4, Lines 1-2). One of skill in the art would by routine experimentation find the optimum volume depending on the required filtered water to be used. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955).

13. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Birdsong et al, Gadkaree et al and Koslow as applied to Claim 19 above, and further in view of Coates et al., U.S. Patent No. 5,707,518.

Regarding Claim 23, Clack in view of Birdsong et al, Gadkaree et al and Koslow does not disclose radial flow. Coates et al teach a water filter device wherein the untreated drinking water radially enters and radially flows through the water filter material (Fig. 9; Col. 5, Lines 43-50). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack in view of Birdsong et al, Gadkaree et al and Koslow with known radial flow means to

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introduce untreated drinking water to the filter cartridge as shown in Coates et al (Col. 5, line 43-53). Claim 23 does not provide a definite structure that allows a radial flow.

14. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Birdsong et al, Gadkaree et al and Koslow as applied to Claim 19 above, and further in view of Wadsworth et al., U.S. Patent No. 6,123,837.

Regarding Claim 28, Clack in view of Birdsong et al, Gadkaree et al and Koslow does not disclose a button. Wadsworth et al teach a filter device comprising a filter release button (#90)(Figs. 4, 17-19; Col. 7, lines 20-38). It would have been obvious to one of ordinary skill in the art to modify Clack in view of Birdsong et al, Gadkaree et al and Koslow with a releasable button to provide a simple and efficient engagement and release means as suggested by Wadsworth et al (Col. 2, Lines 44-50).

15. Claims 29-31 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Birdsong et al, Gadkaree et al, Koslow, Deines et al and Renn.

Regarding Claim 29, Clack discloses a water filter device for treating untreated drinking water, the water filter device comprising: a connector (#28) for providing fluid communication between the water filter device and an untreated drinking water source (#12); a low-pressure water filter (#20) of activated carbon filter module in fluid communication with the connector, a storage housing (#24) in fluid communication with the low-pressure water filter; an automatic shutoff valve (#18) in fluid communication with the storage housing; and a dispenser (#26) in fluid communication with the storage housing. However, Clack does not disclose a water filter comprising the mesoporous activated carbon filter particles and Filter Bacteria Log Removal (F-BLR) of the water filter, a filter vessel, flow regulator, fluid contact time and pressure. Gadkaree

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et al teach a mesoporous activated carbon for water purification (Col. 1, lines 23-24; col. 2, lines 12-17). Koslow teaches a water filter comprising microporous structure of activated carbon having an F-BLR of greater than about 2 logs (Tables I and II)(see col. 1, line 64 – col. 2, line 13; col. 5, lines 27-62). Mesoporous activated carbon of Gadkaree et al inherently has F-BLR of greater than about 2 logs. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to substitute mesoporous activated carbon for activated carbon filter of Clack for capturing bacteria to purify water as suggested by Gadkaree et al and Koslow. Birdsong et al teach a water filter with a filter vessel (#11) and a flow rate of 40 to 300 mL/min (Col. 22, Line 67- Col. 23, Line 2). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack with a filter vessel to house the filter media. One of skill in the art would by routine experimentation find the optimum flow rate. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955). Deines et al teach a water filter device comprising a flow regulator (#145) with an incoming water pressure of between 30 and 40 psi (Col. 5, Lines 29-32). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack in view of Birdsong et al, Gadkaree et al and Koslow with a flow regulator to set a limit on the flow rate as suggested by Deines et al (Col. 5, Lines 34-39). Renn teaches a water filter device with a fluid contact time of 15 seconds (Col. 2, Lines 30-34). One of skill in the art would by routine experimentation find the optimum fluid contact time to remove bacteria. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955).

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Regarding Claim 30, Koslow discloses that the filter material comprises activated carbon particles coated with cationic material to produce basic activated carbon filter particles (Col. 2, Lines 1-14; Col. 4, Lines 53-60). It would have been obvious to one of ordinary skill in the art to modify activated carbon of Clack to basic activated carbon to provide enhanced electro-kinetic interception of microorganisms as suggested by Koslow (Col. 4, Lines 53-58).

Regarding Claim 31, Koslow discloses a water filter comprising activated carbon with a F-BLR of greater than about 4 logs and a F-VLR of greater than about 3 logs (Tables I and II). Mesoporous activated carbon of Gadkaree et al inherently has F-BLR of greater than about 4 logs and a F-VLR of greater than about 3 logs. Furthermore, one of skill in the art would by routine experimentation find the optimum F-BLR. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955).

Regarding Claim 35, Clack discloses that the storage housing (#24) may be separably removed from the filter device via threads (#136) (Fig. 4). Claim 35 does not provide a definite structure that allows filter vessel to be separably removed from the water filter device.

Regarding Claim 36, Birdsong et al disclose a sediment filter i.e. pre-filter consisting of polypropylene fibers (Col. 5, Lines 19-26). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack with a pre-filter to remove dirt particles as suggested by Birdsong et al (Col. 5, Lines 24-27).

16. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Birdsong et al, Gadkaree et al, Koslow, Deines et al and Renn as applied to Claim 29 above, and further in view of Scavuzzo et al.

Regarding Claim 33, Clack in view of Birdsong et al, Gadkaree et al, Koslow, Deines et al and Renn does not disclose a torque. Scavuzzo et al teach a filter comprising a threaded casing with cover that can be installed with a torque of about 4 to 5 ft.-lbs. (Col. 6, Lines 19-25). One of skill in the art would by routine experimentation find the optimum torque to open filter vessel from the base. It is not inventive to discover the optimum or workable ranges by routine experimentation when the general conditions of a claim are disclosed in the prior art. In re Aller, 105 USPQ 233, 235 (CCPA 1955). Claim 33 does not provide a definite structure that allows the filter vessel to be opened with claimed torque.

17. Claims 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clack in view of Birdsong et al, Gadkaree et al, Koslow, Deines et al and Renn as applied to Claim 29 above, and further in view of Coates et al.

Regarding Claim 32, Clack in view of Birdsong et al, Gadkaree et al, Koslow, Deines et al and Renn does not disclose a wall-mount bracket. Coates et al teach a water filter device comprising a wall-mount bracket (#52)(Fig. 5). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack in view of Birdsong et al, Gadkaree et al, Koslow, Deines et al and Renn with wall-mount bracket to mount the filter to a wall as suggested by Coates et al (Col. 3, line 64 – Col. 4, line 10).

Regarding Claim 34, Clack in view of Birdsong et al, Gadkaree et al, Koslow, Deines et al and Renn does not disclose radial flow. Coates et al teach a water filter device wherein the untreated drinking water radially enters and radially flows through the water filter material (Fig. 9; Col. 5, Lines 43-50). It would have been obvious to one of ordinary skill in the art to modify the filter device of Clack in view of Birdsong et al, Gadkaree et al and Koslow with known radial

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flow means to introduce untreated drinking water to the filter cartridge as shown in Coates et al (Col. 5, line 43-53). Claim 34 does not provide a definite structure that allows a radial flow.

18. Applicant's arguments with respect to claims 1 and 3-36 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues that Koslow does not teach mesoporous activated carbon filter particles and a F-BLR of greater than 2 logs. Gadkaree et al teach mesoporous activated carbon for water purification.

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References cited in PTO-892 teach mesoporous activated carbon known in the art.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kim whose telephone number is 571-272-1142. The examiner can normally be reached on Monday-Friday 7 a.m. - 3:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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**John Kim**  
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